LARGE CYST OF THE PANCREAS TREATED BY LATERAL INCISION AND DRAINAGE; RECOVERY.

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THE following case, in the practice of Dr. H. A. Kelly, is of interest, both on account of the rarity of the disease, the difficulties of diagnosis, and the position in which the incision was made.

As a rule, a positive diagnosis of cyst of the pancreas is extremely difficult, and, in fact, many of the published cases have been operated on with an expectation of finding an ovarian cyst, echinococcus cyst of the liver, abscess of the anterior abdominal wall, effusions into the lesser peritoneal cavity, etc., and not until the incision was made and the relations of the cyst carefully investigated was the condition recognized.

In the following case the diagnosis was based on the position of the tumor, its well-marked ovoid outline and tense fluctuant feel, together with the slow, steady increase in size, the gradual emaciation, and the previous history of the size and relations of the tumor.

The treatment was by incision, closing off of the general peritoneal cavity by suturing the cyst wall to the wall of the abdomen, and drainage; the point of chief interest being the site of the incision, in the left flank just below the margin of the ribs, instead of in front or behind.

The reason for making the incision in this position was that here there would be the least interference with other abdominal organs, and that the cyst presented most prominently on the left flank.

The patient, a single woman, aged thirty-eight years, was first seen in consultation with Dr. Thodixas Shearer several weeks before the operation. The family history was without special interest, and she always considered herself a healthy woman ; there was no history of injury before the onset of the present illness, which began about six months before. It began with a great deal of pain in the umbilical and epigastric regions, accompanied by much nausea and vomiting; she thought at the time it was simply an acute gastritis, of which she had already suffered several attacks. The pain, however, did not disappear in a few days, as was usual, but changed its position, being felt now more under the edge of the ribs, most marked on the left side. About two months later, the patient first noticed a tumor, which was then small and somewhat elongate in shape, occupying the position of the pancreas.

Since then tumor has steadily increased in size, pushing more and more towards the left hypogastric region, and slowly changing in shape from an elongate to a more nearly spherical mass. The patient has gradually lost weight and strength, her appetite has been poor, her food digested badly, and lately has had much nausea with vomiting at times.

At the present time she appears much emaciated, the skin is of a peculiar yellowish white color, and the tongue is coated with a dirty whitish fur.

She complains chiefly of a drawing sensation and of pain on the left side under the costal margin, but there is no tenderness on pressure in this region.

The respirations are slightly increased in rapidity, but pulmonary resonance is of good quality, and the respiratory murmur clear. The heart-sounds are clear, the apex being pushed upward, out of position, by the tumor ; the pulse is small and wiry.

On inspection of the abdomen a tumor is seen, ovoid in shape, located chiefly in its upper portion and on the left side. The left side of the thorax is markedly pushed out, and the left side of the abdomen is much more prominent than the right, the tumor reaching on the right only to the semilunar line ; the skin over it is tensely drawn and has a shiny appearance.

The tumor is smooth, except at one place on the anterior surface where there is a superficial boss about eight centimetres in diameter ; its oblique diameter from right to left is twenty-four centimetres (nine and a half inches) ; its vertical diameter is twenty centimetres (eight inches).

On palpation the borders are rounded, it is very tense and resilient, and there is a marked fluctuation wave.

Percussion gives a dull tympanitic note over the anterior portion of the tumor, the flattest note being elicited at a point in the left flank just below the eleventh rib.

The urine is of a low specific gravity and shows a faint trace of albumen. No sugar present. On microscopical examination a few hyaline casts are found.

After an operation had been decided on, the question came up as to whether it would be possible to extirpate the tumor as has been done by several surgeons, or whether it should be incised and drained, as advised by most writers on the subject, and if drained, where should the incision be made.

The question of extirpation was only thought of to be laid aside, because, unless the cyst was pediculated, the extirpation would be almost impossible, and even if pediculated and non-adherent, the relations of the pancreas to the surrounding organs, especially to the important blood-vessels, are so close and intimate that the operation is a most difficult and dangerous one ; the percentage of mortality is, at least, 50 per cent.

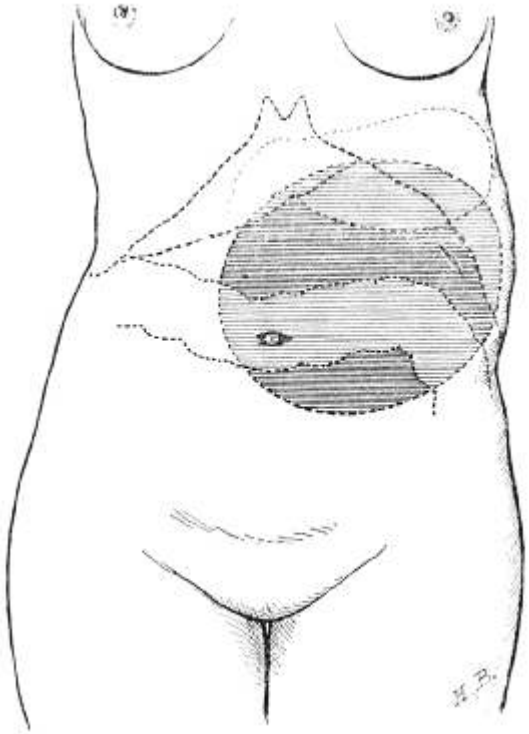
Drainage of such cysts has been done successfully a number of times, by various surgeons, and gives a good prognosis as to life and cure. The incision is generally made on the anterior abdominal wall either on the median line or a little to the right or left. A French surgeon also has advised making the incision through the posterior abdominal wall ; by both of these methods, however, the other abdominal viscera are likely to be in the way and complicate the operation. Having these facts in mind, it was determined to make the incision in the left flank, especially as it was determined by percussion that the colon was pressed entirely out of the way, and that in this position the tumor presented most prominently.

Operation performed March 20, 1895. The patient, having been anæsthetized, was placed on the table, lying on the right side. The skin on the left side of the anterior abdominal wall and on the left flank was shaved, washed thoroughly with green soap, alcohol, and ether, and finally sponged over with permanganate of potash, and decolorized with oxalic acid, which was removed by the liberal use of sterilized water.

The incision was made transversely through the area of greatest dulness in the left flank, just below the free border of the ribs. The

skin and muscle were incised until the peritoneum was reached, which was then raised, nicked, and divided on the finger.

The cyst presented in the opening, covered by several layers of peritoneum, with a large blood-vessel coursing through it; this it was necessary to displace somewhat before a free space could be found through which the cyst could be reached.



Kelly's case of pancreatic cyst. The left side bulged out by the tumor, the dark shaded mass. The stomach is pushed up and the colon crosses the growth. The cut where the tumor was drained is seen under the left ribs.

The wall of the cyst was smooth, of a reddish brown color, and apparently non-adherent. It was caught with artery forceps to prevent it from slipping, and a trocar and canula of about two millimetres in diameter were introduced. The withdrawal of the trocar was followed by a spurt of a dark, muddy, sherry-colored fluid. Three litres of this fluid were removed before the cyst was thoroughly col-

lapsed. The canula was then withdrawn, and an incision five centimetres in length was made through the cyst wall, corresponding in direction with the abdominal wound; two silkworm-gut sutures were passed, one at either end of the wound, entering the skin, passing through all the layers of the abdominal wall, catching up the wall of the cyst, and being brought out near the point of entrance, so as to hold the wound in the cyst in the proper relation to the abdominal wound. A continuous silk suture was then passed, first through the subcutaneous tissues of the abdominal wall, then through the cyst wall, beginning at the anterior end of the wound and continued to the posterior; a similar suture was introduced in the other side of the wound, and carried backward in the same way, when the posterior ends and then the anterior ends of the two sutures were tied together, and a continuous suture surrounding the whole wound was obtained with perfect apposition of the cyst wall to the abdominal wall. About a metre of plain sterilized gauze, made in a strip eight centimetres in width, was used to pack loosely the interior of the cyst, and the usual dressings of sterilized gauze and cotton applied, held in place by a modified Scultetus bandage.

The patient passed a very comfortable night, the pulse changing in character entirely, being full and soft instead of fine and wiry; she had no nausea and was able to take a small amount of liquid nourishment by mouth.

On the second day she was very comfortable, and the dressings soaked with the discharge were removed, when the skin for some distance around the wound was found much reddened and macerated. This condition of the skin around the wound has been noted by several observers, and has been thought due to the digesting properties of the pancreatic juice.

The whole convalescence has been entirely satisfactory; the gauze drain was slowly removed, a small piece being taken off daily; after it had all been removed, narrower strips were at first used, then rubber drainage-tubes, and now the patient wears a small silver tube which Dr. Kelly has had made especially for her. She has never been troubled with nausea or vomiting since her operation; the appetite and digestion have been good and she has steadily gained in flesh. Her bowels have moved regularly, the stools normal in color and consistency. The urine is passed freely; no albumen present; sugar has never been found.

She is able to take up her daily life comfortably, the only draw-

back being the presence of the fistula. It has now been seven months since the operation and the discharge is still free. The question now is whether finally, as in the great majority of cases, the discharge will cease and the fistula close, or whether it will be necessary to keep it open always.

It seems most probably from the amount of secretion at the present time, and from the size of the cyst and the pressure under which the contained fluid was, that there must still be a great deal of gland substance involved and functionally active; if this is the case, the prognosis for speedy closure is not very good.

The cyst contained three litres of dark sherry-colored fluid, looking a good deal like water in which leaves had lain for a long time. The consistency was thin and slightly sticky; it was faintly alkaline on reaction, the specific gravity 1010.

On boiling, there was a thick deposit, found to contain both serum-albumen and serum-globulin; emulcified fat slightly; no mucin or pseudo-mucin present. Under the microscope the fluid showed numerous large granular cells, free yellowish granules, a few large vacuolated cells with nuclei, and many red blood-corpuscles.

The walls of the cyst were uniformly about two millimetres in thickness, dark in color, consisting of two layers, an outer, thin, vascular layer, connected by some loose connective tissue with the firm brown cyst wall, and an inner surface, dark-brown in color, roughened, and thrown into numerous folds by the collapse after removing the fluid contents.